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HAT DOES RESEARCH US ABOUT DAY CARE: For Children Under Three

Lackground studies on day care (Jess pap 81)

Bettye M. Caldwell





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ntil very recently research could tell us very little about day care for the child under 3, for the simple reason that there was no such research. Furthermore, there was almost no day care-

that is, no officially sanctioned day care-for such young children.

By definition, day care involves separation of a child from its mother for all or part of the day. For at least two decades in this country maternal separation was considered tantamount to maternal deprivation. And, as documented in numerous clinical studies, maternal deprivation was most damaging and appeared to have the most toxic long-range effects if it occurred during the first 3 years of life. Thus, at the policy level, day care for the child under 3- and by inference, employment for his mother-was discouraged. No resources were allocated to the planning of facilities and programs for infants.

But the need for infant day care did not go away simply because neither public nor private agencies officially sanctioned it. We know that in June 1958 there were 883,000 children under 3 years of age whose mothers were employed full time. By March 1967, the number had increased to 1,024,000; of these children, 471,000 were cared for in their own homes, 427,000 were cared for in someone clse's home, 77,000 were in other arrangements, and 49,000 were in group

care center programs. Bettye M. Caldwell, Ph. D., is professor of elementary education and director of the University of Arkansas Center for Early Development and Education in Little Rock. She is

also the mother of twins.

The Women's Lib movement had not yet been officially launched, but more and more women were entering the work force and social censure for such entry was diminishing. While maternal employment at that time was not regarded as a patriotic act, as had been the case two decades earlier, it often meant the difference between financial dependence and independence for a family. Each mother choosing to work had to find some type of day care for her very young child or children.

In addition to mothers in the work force, another group of mothers began to seek infant care. These were mothers in their teens, who benefited from a little noticed - but dramatic-change in the attitudes and programs of public school systems toward them. Until the mid-1960's the pregnant school-age girl and the young mother were invariably excluded from continuing their education. Then demonstration projects initiated by the Children's Bureau developed special programs or classes for the continuing education of the young girl during pregnancy and the period following the birth of her baby. As a result of the rapid acceptance of this concept, about 50,000 pregnant girls today attend classes in more than 200 programs in the United States.

The encouragement and support of the mother's return to school created a new demand for infant day care during school hours. Once the demand was created, public and private community agencies began to give some thought to the provision of day care and to the development of standards. And a recent survey of 67 infant care programs showed that onethird were primarily concerned with the needs of the school-age parent.



Almost simultaneously a number of people whose original intere ts were far from the day care arena published descriptive studies suggesting that many children were being deprived of essential experiences in their early years in terms of sensory input, consi tency of response from adults, and even emotional warmth and support. These workers saw the need to plan and arrange environments for young children that would provide favorable experiences without producing any of the deleterious byproducts associated, with institutionalization. Day care for infants offered the possibility of such enrichment in a planned setting and, at the same time, a much needed service to the family.

Recognizing the potential importance of both these social currents—the desire for more day care for children under 3 and the interest in developmental en-

vironments for young children, the Child Welfare Research and Demonstration Grants program of the Children's Bureau initiated several demonstration projects in infant day care between 1964 and 1967.

Enriching experience

On the research front, accumulating evidence suggested that during the first 3 years a child needs a certain amount and quality of experience for an optimal rate of intellectual development. Stimulated largely by the writings of Hunt, Bruner, and Bloom, researchers in the field of human development began to give serious consideration to whether the environments available to many young childrenespecially the children of the poor—adequately provided these experiences. Projects were conducted in centers in Syracuse, N.Y.; New Haven, Conn.; and Chapel Hill and Greensboro, N.C.

Although these research-based projects are still relatively young—so young that the oldest children who participated in day care from early infancy are only now reaching public school, they all have produced important information about day care for children under 3.

Of course, these were not the only centers offering infant day care. In 1967, the Parent-Child Center program, a component of Headstart, was launched in 36 cities. Planning for this project reflected, in part, the concern of many professional workers and parents that infant day care could conceivably weaken the basic ties between parent and child. Therefore, these programs concentrated on the parent-child dyad rather than the child as an individual. Several parent-child centers, however, offered infant day care.

Intellectual development

What are the effects of day care in infancy on a child's intellectual development? This is probably the question answered most frequently by research workers concerned with early childhood because it is easier to answer than the other questions we ask. That is, there are virtually no appropriate research instruments for use with very young children, except in the area of intellectual—or more aptly, pre-intellectual—development. Of course, all the scales for assessing infants' progress touch upon all aspects of the child's development, no matter what they might be labeled. Furthermore, it can be argued that a child's rating on a developmental scale gives a valid indication of his overall social and emotional functioning.

Studies relating to the effects of day care on intel-

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lectual or cognitive development show that in general children are not harmed by experiences in a day care environment at an early age as many researchers had feared and, in fact, many young children benefit significantly from such exposure.

For example, the progress of children in the Syracuse infant development project between 1965 and 1968 has recently been summarized. During that time 86 children who had entered day care prior to age 3 and had remained in the program for at least 6 months were compared to a control group of 34 children from comparable social backgrounds without day care experience. Each child was rated twice, the first time on either the Cattell Infant Intelligence Scale or the Stanford-Binet test, and near the end of the study period on the Stanford-Binet test. Scores for children who had been in day care showed an increase of about 17 points while those of children in the control group showed a decrease of about 6 points.

Another study supports the finding that young children in day care were in no way cognitively harmed by their experience. Data from an infant center in Greensboro, funded as a Children's Bureau demonstration project, did not show cognitive gains associated with day care experience, however.⁵



The difference between the findings of these two studies can perhaps be explained by the fact that they served different types of populations. Approximately two-thirds of the children

in the Syracuse project represented economically and socially disadvantaged families, whereas those in the Greensboro sample came from middle-class families.

Social and emotional development

The effects of day care on a child's social and emotional development is the special interest of the infant care project conducted at the Yale Child Study Center under the direction of Sally Provence. Sensitive, detailed descriptions of the psychosocial development of a small group of children in day care are being studied to discover the way a young child internalizes the social experiences inherent in early group activities and integrates them with other significant social, emotional, and developmental tasks.

My associates at Syracuse and I have dealt with one extremely important aspect of social and emotional development—the attachment of children to their own mothers, and the reciprocal attachment of the mothers to their children.⁶ Primary maternal attachment is considered an essential foundation to all other social attachments that a child forms in later life.⁷ In order to obtain some information on how infant day care affects this basic attachment, the Syracuse staff compared two groups of mother-child dyads.

Children in one group of 18 mother-child pairs had been involved in the Syracuse day care program from the time they were approximately 1 year old. Children in the other group of 23 mother-child pairs had remained in the exclusive care of their mothers during that same period. All assessments were made when the children were approximately 30 months of age. Based on observations of interaction between the mothers and the children in a 3-hour session, interviews about the child's behavior at home, and discussions of the mother's own child-rearing patterns, a cluster of ratings pertaining to attachment behavior was made for each mother and child.

Findings of the study should be very reassuring to all persons concerned with infant day care. In terms of the attachment of the children to their own mothers, there were no significant differences between the day care and the home-reared infants. That is, the children who had been enrolled in day care and had been exposed to several adults daily since

before their first birthday were just as attached to their own mothers as were the children who had remained at home during this same period.

The children were also rated on breadth of attachment, in terms of their attachment to people other than their mothers. The day care infants enjoyed interaction with other people more than the home-reared infants. This finding is compatible with data from the Schaffer and Emerson study, which showed that infants who had had extensive contacts with other people tended to develop attachment to more people than infants who had been isolated.



In regard to strength of attachment of the mothers for their children, there were again no major differences between the groups. One factor may affect the conclusion that "infant day care

does not affect attachment": all infants in the Syracuse project were at least 6 months old when they were enrolled. This policy was adopted to permit the primary child-mother attachment to develop before the child was placed in a situation that might conceivably weaken it.

Other findings in this Syracuse study which, while not directly answering our question about the effects of day care upon social and emotional functioning, demonstrate the informational byproducts that can generally be expected from broad-based research. For example, when the day care and home-reared samples were combined, we found that strength of attachment of a child for his mother was correlated with developmental level. That is, children whose development was most advanced usually were rated as the most attached to their mothers. Similarly, there was some evidence that the most advanced babies tended to have the most attached mothers. Both of these findings corroborate the point made earlier that one cannot effectively separate intellectual development from other aspects of development.

Several other projects are continually monitoring the social and emotional development of infants whose early experience has included day care. Within the next 5 years a great deal of information on this topic should be available.

Health

The question of the effects of day care for children under 3 on their health is a major one. Because of the associated health hazards, it would have been folly until just a few years ago to advocate bringing large numbers of infants together in groups—epidemics of measles or polio could have been the disastrous consequences. Now, however, such illnesses can be controlled by immunization and, provided a family receives good medical care, they no longer need to pose a serious threat to the presence of infants in groups.

What about the array of less serious, but still troublesome, illnesses that beset infants in any environment? Specifically, what effect will infant day care have on the incidence and severity of colds and other respiratory illnesses? Will infants in groups have perpetual runny noses and will one infant in a group so spread his illness that no one will be safe?

Several infant centers are currently collecting data on this subject, but to date only the Chapel Hill research group has published preliminary results. Over a 5-year period, this research group studied respiratory illnesses among approximately 100 preschool children who had attended the Frank Porter Graham Child Development Center for some length of time. Most of the children entered day care before their first birthday. The average incidence of respiratory illness for this group was 8.9 illnesses per child per year. The highest incidence rate, 10 per year, was found among children under 1 year, with the figure dropping below 8 per year among the 3-year-olds.

The Chapel Hill data were compared to data from a large metropolitan community, which showed an

average of 8.3 illnesses per year for 1-year-old children and 7.4 per year for those from 2 through 5.

Glezen and his associates concluded that day care might be associated with a slightly higher rate of respiratory illnesses in children under 1 year of age than for older ones but that after that age the incidence figures were very similar to those reported for home-reared children.

Data from the Chapel Hill study should be very reassuring to those who are interested in operating infant day care programs. In the Chapel Hill Center, no attempt was made to isolate the ill children unless this appeared necessary for the ill child's own wellbeing. Of course, high standards of cleanliness were maintained by the staff. Also, all children received excellent medical care through the program and, by 1967, a nurse and part-time pediatrician were part of the staff. Thus, one should not, from the results of this one study, rush to the conclusion that infant day care will never be associated with increased incidence of illness. Obviously the data are from a high-quality program which strove for optimal conditions for the maintenance of health. They are in the least encouraging.

Effects on parents

What are the effects of infant day care on parents? This is an extremely important question, but one for

which no objective data can be offered at present. Although the main focus of infant day care obviously is on the child, all known programs have made some effort to have an impact on parents as well. Traditionally parent involvement in day care is hard to achieve, and infant day care is no different from day care for older children in this area. One reason is not hard to understand: working mothers by definition must combine home duties and work duties, and it is often difficult for them to find time to participate in day care activities.



Most infant day care programs have attempted at least an informal evaluation of the effects of the program on participating parents, and such reactions usually are positive. Infant care

directors have reported that although parents complain about opening and closing hours, behavior of a particular staff member, fees, and other essentially administrative details, they are usually enthusiastic about how the program is helping their children.

It may well be that infant day care will have important tangential effects on parents which, in turn, can only further benefit the children. That is, most parents interact positively with their children when the children please them. And parents are invariably pleased by watching their children develop well. If infant day care helps children develop their abilities

to their full potential and evolve healthy patterns of social and emotional functioning, then parents are going to enjoy their interaction with the children and offer them more social reinforcement.

A hint of this pattern can be found in the already described study from the Syracuse project that suggested the mothers of more developmentally advanced infants were more attached to their infants. Thus, if infant day care can foster developmental advance, it can indirectly foster more positive maternal attachment. According to everything we now know about how infants develop, such a process can benefit both the child and the mother—and eventually the total society.

Experience abroad

A number of recent studies have reported on the experiences in Europe, the Soviet Union, and Israel concerning day care for infants. Currently, Marsden and Mary Wagner are making an intensive study of the day care programs in Denmark, which has had a long and successful experience with group care of infants.

That country has found that it is better to locate day care centers near the children's residence rather than the place of work for the mother. Small neighborhood centers are preferable to large centralized ones and all care services should be provided in the center, including health and social services. Children up to the age of 3 are divided into three care groups -3 to 10 months, 10 to 18 months, and 18 to 36 months. The staff ratio varies from 1 to 2 to 1 to 4 for the younger infants and increases to 1 to 8 for the older children.

The infant care worker is a trained secondary school graduate who has had a 1-year specialized course followed by a year's internship.

Price tag

The cost of infant day care, of course, is extremely important. Unfortunately, at this time we do not have any firm figure for quality infant care. In all of the Children's Bureau research and demonstration projects care has been expensive—ranging from \$2,400 to \$8,000 per child per year. These figures can be misleading, however, because a major portion of cost in every one of these programs is the research and evaluation component. In addition to the salary of all persons whose assignment is to conduct research and

the cost of all research-related equipment and supplies, there are usually a large number of free personnel who contribute to the program in one way or another—students who work directly with the children, faculty members who offer free supervision, visitors with special competencies, and volunteers who like to work in high-visibility programs.

Of course, one major difficulty in computing the cost of quality infant day care is the difficulty in defining quality infant day care operationally.

Today in the field of evaluation the key word is "accountability"—the operators of programs must specify precise behavioral objectives and demonstrate that the programs do indeed accomplish these objectives. In the area of infant day care, we are trying to create settings in which little children can develop well and happily. We know that we do not wish to equate such a diffuse goal with so many points on a developmental test.

So what can we use instead? Those who are interested in spreading the potential benefits of infant day care to a wider group must be willing to come to grips with this unpleasant but essential question. Until such time as our society has adequate resources to meet every social need, every service must justify its claim on the public resources. At this juncture it appears that infant day care will be able to do that. A necessary first step is the accumulation of much more objective information about the effects of such an experience on all aspects of infant and family functioning.

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